

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Federal Communications Commission Requests)	WT Docket No. 05-157
Comment on Spectrum Needs of Emergency)	
Response Providers)	
)	
Input Required for FCC Report Mandated by)	
the Intelligence Reform and Terrorism)	
Prevention Act of 2004)	

COMMENTS OF IRIDIUM SATELLITE LLC

Iridium Satellite LLC (“Iridium”) respectfully responds to the Federal Communications Commission’s (“FCC” or “Commission”) Public Notice seeking comment for its study assessing the spectrum needs of emergency responders and related report to Congress.¹ In conducting this study, Congress directed the Commission to “consider the use of commercial wireless technologies to the greatest extent possible.”² Iridium files these comments specifically to highlight the important role the mobile commercial satellite industry serves in ensuring this nation’s homeland security, as well as in aiding in disaster relief and recovery throughout the world.³ As shown below, Iridium’s mobile satellite system is

¹ Federal Communications Commission Requests Comment on Spectrum Needs of Emergency Response Providers, Public Notice, FCC 05-80 (Mar. 29, 2005) (“Public Notice”).

² Intelligence Reform and Terrorism Prevention Act of 2004, Pub. L. 108-458, § 7502(c), 118 Stat. 3638, 3856 (2004) (Intelligence Reform Act).

³ Iridium takes no position on the allocation of additional spectrum in the 700 MHz band to emergency response providers or the operation and administration of a potential nationwide interoperable broadband mobile communications network.

uniquely qualified to fulfill many of the critical spectrum requirements of emergency responder systems.

One of the greatest benefits to emergency responders of the Iridium system is its expansive geographic coverage. Iridium's satellite system covers all operating areas, including rural areas and open ocean. Indeed, Iridium currently operates literally the only system that provides truly global, near instantaneous communications service to every place on earth. Iridium's service is instantly available when first responders arrive on-site, with no advance arrangements or reservations required. Since the time and place of crises are unpredictable, the certainty and instant availability of such communications service is essential to meet the needs of first responders. Iridium's system already provides the United States Coast Guard with beyond the horizon communications over all U.S. waterways, oceans, and polar routes using a single phone, a single frequency, and a single network. It is thus well suited to serve the needs of local, state, and federal emergency responders nationwide.

Moreover, the Iridium system is a high value asset not only in rural areas but also as an essential backup, when an incident occurs that negatively impacts the public switched telephone network. The Iridium system is independent from all terrestrial and foreign infrastructure and instead relies solely on satellite-to-satellite crosslinks to provide voice and data communications anywhere that the Department of Homeland Security, law enforcement, and/or first responders may conduct operations. This independence allows organizations operating in one area to communicate across the world via a satellite system without having to rely on terrestrial systems that may be destroyed during a disaster. In these circumstances, Iridium can support programs that ensure communications support for first responders, the

Department of Homeland Security, and law enforcement officers in the most challenging circumstances (*i.e.*, during a natural disaster, terrorist incident, or simulated exercise). The Iridium system can also connect with various other communications networks. As such, it can link diverse operating organizations on a single network during wide area missions. For example, Iridium's Sky Connect terminals are frequently linked directly to hospitals' PBX or hotlines to ensure communications in case of emergencies such as hurricanes or disasters in which normal communications are disrupted. The relative ease-of-use of this system when combined with its comprehensive coverage has made it an ideal system for homeland security and emergency responder purposes.

In addition, satellite encryption technologies have evolved so as to allow the transmission of critical, sensitive information via satellite without concern of interception. Iridium's system is extremely secure, allowing for the transmission of confidential information that is critical to this country's homeland security. In particular, Iridium utilizes private and dedicated digital communications channels that are virtually impossible to intercept. This structure allows Iridium to designate certain communications with priority access status. Iridium also has allowed for the implementation of NSA accredited type 1 secure encryption capabilities into all of its handsets. For example, the standard Iridium phone accommodates a DOD developed secure module that simply replaces the battery cover and provides full secure communications accredited up to top secret.

Finally, Iridium's current infrastructure and equipment is ideal to handle the high mobility and interoperability needs of homeland security and emergency responder communications. Iridium largely uses commercial off-the-shelf equipment in connection with its full range of products and services that are offered on a global basis, thus ensuring that a

wide variety of organizations will be able to communicate during times of crisis with minimal equipment coordination. This equipment is generally small, lightweight, and mobile, making it easy to carry and use in any situation. This equipment is also available on both a rental and a purchase basis. The wide availability of Iridium's equipment when combined with its portability ensures that it is highly effective in dynamic and evolving theaters of operations, such as disaster areas and war zones.

It is critical that first responders be connected to medical personnel and hospitals in the case of a biochemical attack or a medical crisis. The tragic events of September 11, 2001 provided a wake up call that this country's medical community is not adequately integrated into the country's emergency response communications network. In response to this clear need, one of the many homeland security and emergency responder services that Iridium has begun to provide in the area of connecting hospitals and medical personnel is an integrated voice and data application for pilots – particularly medevac helicopter pilots. Medevac helicopter operators use Iridium to transmit information such as flight times, text messaging, weather requests, maintenance requests, engine monitoring, flight tracking, medical emergency support, and email. These capabilities are critical for medevacs to find patients quickly, gather and submit medical information prior to and following patient transport, as well as for efficient operation and routing of helicopters. Iridium's low-cost, lightweight, and quick and easy to install equipment have proved ideal for medevac communications. The secure and proprietary communications protocols of the Iridium network ensure that private medical and security-oriented information cannot be intercepted by unauthorized personnel. These systems include Iridium's Sky Connect TRACKER systems, EagleMed Air

Ambulance⁴ and MedSTAR.⁵ Accordingly, Iridium's mobile satellite system is ideally designed to handle homeland security and emergency response communications.

As satellite technology continues to evolve, the ability of satellites to aid in the delivery of emergency communications will only increase. Thus, satellite technology should continue to play a critical role in emergency response communications. For this to occur, however, it is critical that the Commission ensure Iridium continues to have enough spectrum to provide these services that are such a vital component of the country's emergency preparedness capabilities.

Respectfully submitted,

By: /s/ Donna Bethea-Murphy

Donna Bethea-Murphy
Vice President, Regulatory Engineering
Iridium Satellite LLC
6701 Democracy Blvd.
Suite 500
Bethesda, MD 20817
301.571.6200

Dated: April 28, 2005

⁴ EagleMed owns and operates a critical transport service in the Mid-West that operates over 400 missions per month. Iridium's system allows EagleMed to transmit flight tracking data and voice calls between aircraft and dispatch center, as well as provides real-time information and visual acuity. The integrated system allows flight crews a two-way telephone capability for conferring with doctors and hospitals and computes actual miles flown, crosschecks crew hours, alerts when aircraft must be removed from service, and generates reports for FAA safety audits. Finally, it gives pilots a heads-up about approaching weather and can vector aircraft to specific locations.

⁵ MedSTAR Transport is the primary source of life-saving transportation in the Baltimore-Washington, DC corridor. Flying over Washington, DC, MedSTAR pilots must circumnavigate 15 restricted airspaces in a high-volume air traffic area that rivals New York City and Los Angeles. MedSTAR uses the Iridium-based Sky Connect TRACKER systems for tracking and voice communications, enhancing air-to-ground communications. These systems reduce workload on communications specialists and flight crews, increasing safety while simplifying operations, and enable MedSTAR to view the location and status of fleet anywhere and under virtually any conditions.